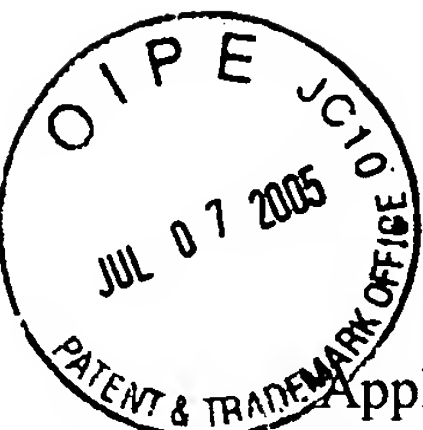


*fw*



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Zhaowei Liu et al.  
 Serial No. : 10/617,750  
 Filed : July 14, 2003  
 Title : SYSTEM AND METHOD FOR DETERMINING KNOWN DNA VARIANTS  
 WITH TEMPERATURE GRADIENT ELECTROPHORESIS

Art Unit : 1753  
 Examiner : Unknown

**MAIL STOP AMENDMENT**

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed before the receipt of a first Office Action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:

*July 5, 2005*

Julius C. Fister, III, Ph.D.  
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*Toni M. Sauer*

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Substitute Form PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark OfficeAttorney's Docket No.  
16969-037001Application No.  
10/617,750**Information Disclosure Statement  
by Applicant**

(Use several sheets if necessary)

(37 CFR 1.98(b))

Applicant  
Zhaowei Liu et al.Filing Date  
July 14, 2003Group Art Unit  
1753**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,066,377	11/19/1991	Rosenbaum et al.			
	AB	5,734,058	3/31/1998	Lee			
	AC	5,736,025	4/7/1998	Smith et al.			
	AD	5,998,147	12/7/1999	Petit et al.			
	AE	6,017,704	1/25/2000	Herman et al.			
	AF	6,265,171	7/24/2001	Herman et al.			
	AG	6,265,557	7/24/2001	Diamond et al.			
	AH	2002/0012902	1/31/2002	Fuchs et al.			
	AI	6,475,721	11/5/2002	Kleiber et al.			
	AJ	6,486,309	11/26/2002	Gerber et al.			
	AK	6,613,508	9/2/2003	Ness et al.			

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL	WO 96/24687	8/15/1996	PCT				
	AM	WO 97/40184	10/30/1997	PCT				
	AN	WO 01/77386	10/18/2001	PCT				
	AO	WO 02/31199	4/18/2002	PCT				

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AP	Abrams et al., "Comprehensive Detection of Single Base Changes in Human Genomic DNA Using Denaturing Gradient Gel Electrophoresis and a GC Clamp," Genomics, Vol. 7, pp. 463-475 (1990)
	AQ	Alper, Joseph, "Biotechnology: Weighing DNA for Fast Genetic Diagnosis," Science Magazine, Vol. 279:5359, pp. 2044-2045 (1998)
	AR	Chee et al., "Accessing Genetic Information with High-Density DNA Arrays," Science Magazine, vol. 274, No., 5287, October 1996, pgs. 610-614 (pgs. 1-13)
	AS	Gelfi et al., "Detection of point mutations by capillary electrophoresis in liquid polymers in temporal thermal gradients," Electrophoresis, 1994, vol. 15, pgs. 1506-1511
	AT	Henco et al., "Quantitative PCR: the determination of template copy numbers by temperature gradient gel electrophoresis (TGGE)," Nucleic Acids Research, vol. 18, No. 22, pgs. 6733-6734

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 16969-037001	Application No. 10/617,750
	Applicant Zhaowei Liu et al.		
	Filing Date July 14, 2003	Group Art Unit 1753	

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AU	Igloi, Gabor L., "Automated Detection of Point Mutations by Electrophoresis in Peptide-Nucleic Acid-Containing Gels", BioTechniques, 27:798-808 (1999)
	AV	Ke et al., "Selecting DNA fragments for mutation detection by temperature gradient gel electrophoresis: Application to the p53 gene cDNA," Electrophoresis, 1993, vol. 14, pgs. 561-565
	AW	Khrapko et al., "Constant denaturant capillary electrophoresis (CDCE): a high resolution approach to mutational analysis," Nucleic Acids Research, 1994, vol. 22, No. 3, pgs. 364-369
	AX	Myers et al., "Detection of single base substitutions in total genomic DNA," Nature, February 1985, vol. 313, pgs. 495-498
	AY	Ray et al., "Peptide nucleic acid (PNA): its medical and biotechnical applications and promise for the future", Department of Physical Chemistry, Chalmers University of Technology, S 412 96, Gothenburg, Sweden, pp. 1041-1060
	AZ	Riesner et al., "Temperature-gradient gel electrophoresis of nucleic acids: Analysis of conformational transitions, sequence variations, and protein-nucleic acid interactions," Electrophoresis, 1989, vol. 10, pgs. 377-389
	AAA	Riesner et al., "Temperature-gradient gel electrophoresis for the detection of polymorphic DNA and for quantitative polymerase chain reaction," Electrophoresis, 1992, vol. 13, pgs. 632-636
	ABB	Sidransky, David, "Nucleic Acid-Based Methods for the Detection of Cancer," Science, vol. 278, November 7, 1997, www.sciencemag.org, pgs. 1054-1058
	ACC	Taylor et al., "Detection of Mutations and Polymorphisms on the WAVE™ DNA Fragment Analysis System," TRANSGENOMIC, Application Note 101
	ADD	Wang, David G., "Large-Scale Inditification, Mapping, and Genotyping of Single-Nucleotide Polymorphisms in the Human Genome," Science, vol. 280, May 15, 1998, pgs. 1077-1082
	AEE	Wartell et al., "Detecting single base substitutions, mismatches and bulges in DNA by temperature gradient gel electrophoresis and related methods", Journal of Chromatography, pp. 169-185 (1998)
	AFF	Wiese et al., "Scanning for mutations in the human prion protein open reading frame by temporal temperature gradient gel electrophoresis", Electrophoresis, pp. 1851-1860 (1995)
	AGG	"High-Throughput Detection of Unknown Mutations By Using Multiplexed Capillary Electrophoresis With Polyvinylpyrrolidone Solution", The Ames Laboratory, U.S. Department of Energy by Iowa State University, pp. 1-28
	AHH	Qiufeng Gao et al., 25. High-Speed High-Throughput Mutation Detection, <a href="http://www.ornl.gov/sci/techresources/Human_Genome/publicat/00santa/25.html">http://www.ornl.gov/sci/techresources/Human_Genome/publicat/00santa/25.html</a> , Research Abstracts, 2000, DOE Human Genome Program
	AII	entries for "Peltier Effect", "thermoelectric heating", "thermoelectric cooling" and "thermoelectric cooler" in the McGraw-Hill Encyclopedia of Science & Technology Online. Downloaded on June 6, 2005

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	